## Georg-August-Universität Göttingen <br> Module M.FES.712: Bioclimatology and Global Change <br> 6 C (incl. key comp.: 6 C) <br> 4 WLH

| Learning outcome, core skills: | Workload: |
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| Scientific basis of climate and climate change, trace gas budgets of soils and whole | Attendance time: |
| ecosystems and the potential to sequester carbon and nitrogen in managed and | 56 h |
| unmanaged terrestrial ecosystems. | Self-study time: <br>  |


| Course: M.FES.712.Lec Bioclimatology and Global Change (Lecture) | 4 WLH |
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| Contents: |  |

The module "Bioclimatology and Global Change" will introduce the students to the global climate system and its interaction with the biosphere. A lecture course will focus on the scientific basis of climate and climate change covering basic physical and chemical processes governing the climate system, climate zones, modelling as well as global and regional climate phenomena with a focus on tropical climates. A seminar course will highlight trace gas budgets of soils and whole ecosystems and their potential to sequester carbon and nitrogen in managed and unmanaged terrestrial ecosystems and their vulnerability to climate change. Using journal literature the students will work out oral presentations concerning current research topics concerning the global climate system and its interaction with the biosphere.

Examination: Oral exam (approx. 20 minutes, 50\%) and oral presentation (approx.
6 C
20 minutes, 50\%)
M.FES.712.Mp: Bioclimatology and Global Change

## Examination requirements:

Understanding the most relevant processes at the biosphere-atmosphere interface and of biogeochemical cycles. Being able to find, read, evaluate, and present scientific literature related to Global Change.

| Admission requirements: <br> none | Recommended previous knowledge: <br> none |
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| Language: <br> English | Person responsible for module: <br> Prof. Dr. Alexander Knohl |
| Course frequency: <br> each winter semester | Duration: <br> 1 semester[s] |
| Number of repeat examinations permitted: <br> cf. examination regulations | Recommended semester: |
| Maximum number of students: <br> 30 |  |

